Jackson County REMC

At the last Electric Service Quality Workshop in September, Staff stated it would issue a short follow-up data request regarding power quality. The Commission recognizes that not everyone who receives this data request will have the experience or information to respond. However, we have circulated the data request to everyone so that everyone is aware of the on-going process related the electric service quality.

Over the course of the workshops we have discussed three broad categories of electric reliability problems: Sustained outages have been defined as interruptions in service lasting more than five minutes and requiring utility intervention to restore service; Momentary outages, for our purposes, have been identified as service interruptions of less than five minutes in which service is restored without utility intervention; Power Quality problems are deviations in the nature or character of the electricity which may affect the performance of customers' electric equipment.

1. From a customer's perspective, how are power quality problems usually described/identified, i.e. what does the customer complain about?

   Blinking or flickering lights is by far the most received complaint from members. Lights dim when A/C or furnace comes on. These are usually caused by members installing larger equipment without notifying utility first. Momentary line interruptions caused by a variety of reasons are also heard.

2. Are the complaints and/or problems different for residential or small commercial customers versus large commercial or industrial customers? If so, please explain how the complaints are different.

   Industrial customers are typically more sensitive to momentary interruptions due to causing problems with their automated processes. On staff electricians or engineers at the industrial facilities understand the necessity of providing timely information about changes in their load requirements much better than residential customers. They also understand the problems and reasons why some disturbances occur much better.

3. What steps does your utility take to address power quality complaints?

   We will inspect all of our facilities first and install recording instruments in order to capture the event that is being reported. Depending on the nature of the complaint various data sources are analyzed in order to find the root cause of the issue. Recommendations are made if the problem is on the customer's side and corrective actions are taken if our facilities need to be addressed.

4. Does your customer call center categorize power quality complaints separately? No.

- If so, how many power quality complaints have there been in the last 12 months? How were these complaints resolved?
- If not, please estimate how many power quality complaints there has been over the last 12 months and how they were resolved.

We have had 34 occurences in the past 12 months where we have either installed recording instruments at the request of a customer or resolved the issue.

5. Are there actions customers can take to insulate their equipment from power quality problems? If so, please explain what actions could be taken.

   Surge protection would help protect customer's equipment from system disturbances caused by lightning, vehicle accidents, etc. Proper installation and understanding of sensitive equipment's setting would be beneficial. Having their facilities inspected by a qualified electrical inspector could help eliminate some problems and misunderstandings before they occur.

   Customers almost always assume that the utility is to blame when a piece of equipment malfunctions or is damaged. Most of the time the problems can be attributed to the customers wiring, malfunctioning equipment, and not notifying the utility when they plan to add additional load to their service.